

# Request for Innovative P2 Metal Finishing Technologies

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**Responses Due:** 9/24/99

The purpose of this Request for Technology (RFT) is to solicit the participation of metal finishing pollution prevention (P2) equipment suppliers (developers or manufacturers) who wish to have their technology performance verified by the U.S. Environmental Protection Agency's (EPA's) Environmental Technology Verification (ETV) Program for P2 Metal Finishing (MF) Technologies Pilot by the newly developed generic testing approach. The goal of the ETV-MF Pilot is to verify the performance characteristics of commercial ready metal finishing P2 technologies through unbiased third party testing under actual operating conditions in metal finishing shops nationwide. As defined by EPA, commercial ready technologies are either in use or ready for full-scale production. This does not include technologies at the bench or pilot-scale or those in the research and development stage.

## Description of Generic Technology Verification

The objective of generic technology verification is to test P2 technologies by functions or classes, rather than specific commercial products as is done with standard technology verification. The generic technology verification is best implemented in situations where multiple vendors agree to test a single technology category (e.g., ion exchange) for a specific application, or different technologies (ion exchange, porous pot, membrane electrolysis) that perform the same environmental function (e.g., chromic acid bath maintenance). The overall generic verification process involves the same general project steps as the standard process; however, there are three major differences:

1. With generic technology verification, a special team or workgroup is formed at the outset to guide the generic verification projects. The workgroup will be comprised of representatives from supplier companies, the ETV-MF Team, and stakeholders.
2. Companies participating in a generic technology verification project commit to test arrangements through an agreement among participants. The agreement identifies cost sharing, schedule, and responsibilities.
3. The output of generic technology verification differs from standard technology verification. With generic technology verification, company names are not linked to the test results. However, companies taking part in generic technology verification are acknowledged in the test report. Also, no Verification Statement will be released under generic technology verification. In its place, a similar document, the Verification Results Summary, will be issued.

## Focus Areas for Which Technologies are Being Solicited

The ETV-MF Stakeholder Group has identified four main focus areas: (a) acid bath maintenance for mineral acids, (b) electroless nickel bath maintenance, (c) aqueous

cleaner solution maintenance, and (d) chromate conversion coating solution maintenance. P2 technologies are being sought for these four focus areas; however, the ETV-MF Pilot requests manufacturers of technologies outside of these focus areas such as rinsewater purification or conservation, also apply, in order to be considered for generic technology verification.

## Verification Process

Suppliers whose technologies are commercially ready and can prevent or reduce pollution are requested to provide information, on an Abstract Submittal Form, that provides supporting data for their technologies. The ETV-MF Team will review the information to ensure the technology meets the intent of this solicitation, and with guidance from stakeholders, will group and rank technologies for generic verification testing. The ETV-MF Team will meet with the suppliers to discuss the parameters for generic verification testing, preparation of a test plan, cost sharing, and test schedules. The generic verification testing of technologies will then be conducted according to the approved test plan. The products of generic verification testing are a Verification Report that states quantitatively the performance of the technology, and a Verification Results Summary that summarizes the generic verification test results.

## Cost Sharing

To help establish the ETV-MF Pilot, a limited number of verifications will be performed where the cost is shared by the ETV-MF Pilot and the suppliers. However, limited funds are available to support verification testing. Therefore, the suppliers will be asked to share the cost of the verification. The recommended contribution from the supplier is 25% (up to a maximum of \$10,000); the ETV-MF Pilot will contribute 75% of the verification testing costs. The supplier/ETV-MF cost-sharing arrangement may vary, and will be agreed upon by all parties prior to initiating the test.

## Supplier Involvement

Suppliers are expected to contribute time, equipment, materials, and funds to the verification process. Specifically, suppliers will be obliged to attend a "vendor meeting" to obtain additional verification testing information; assist in developing the test plan; commit the commercially ready unit for the duration of the verification test; provide procedures for operating the technology; assist with set-up and operation of the technology, and review the verification report and verification results summary. The ETV-MF Pilot is responsible for finalizing the test plan; conducting the verification tests; evaluating the data; preparing a Verification Report and Verification Results Summary; and disseminating the results to potential purchasers and environmental permittees.

## Supplier Benefits

The ETV-MF Pilot will prepare and distribute a Verification Report and Verification Results Summary, which documents technology performance relative to pre-established

test plans. Suppliers can use the Verification Report and Verification Results Summary to attract prospective purchasers of their technology by providing them with third-party quality-assured data on technology performance under realistic testing conditions. The ETV-MF Pilot has an aggressive information distribution program. The results of the verification will be published on the EPA and ETV-MF Internet websites and distributed through state and regional information distribution channels to purchasers, consulting engineers, and permittees to increase their awareness of the technology. Participation will help to maximize supplier marketing resources. Verification conducted under the auspices of the ETV-MF Pilot may alleviate the need of doing product-specific verifications at the direction of each potential purchaser. Finally, the ETV-MF Stakeholder Group composed of members from Federal, state, and local environmental regulatory agencies, members of industry associations, industry consultants, environmental technology suppliers, and users of metal finishing equipment who provide input on the development of the verification process. This will enhance the acceptance of the verified technology.

## Response Format

Interested suppliers should provide the information requested on the [Abstract Submittal Form](#). As appropriate, confidential or proprietary information should be so indicated on the submission. It is recommended that this type of information be kept to a minimum. Forms should be submitted to the ETV-MF Pilot no later than September 24, 1999, in order to receive consideration for the generic verification program. Please address technical questions about this request for technologies to:

Please address technical questions about this request for technologies to:

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